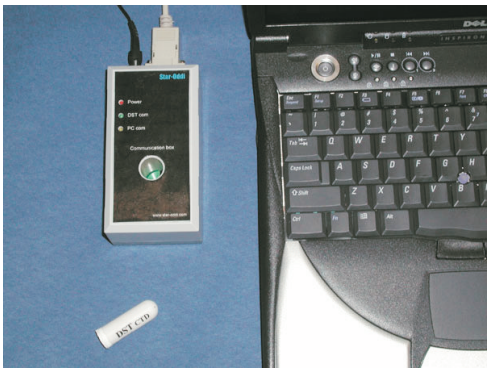
Star-Oddi
Marine Device Manufacturing

DST CTD - Data Storage Tag

Salinity, temperature and depth recorder

DST CTD

The Data Storage Tag DST CTD measures three paremeters, conductivity (salinity), temperature and pressure (depth). The data are stored into a non-volatile internal memory. All recordings are time related, utilising a real-time clock inside the recorder. The DST CTD is controlled by an ultra low power consumption microprocessor, which enables the long life of batteries inside. The cost effective and small size of the DST CTD has been made possible by careful selection of modern microminiature electronic components and the successful sensor development at Star-Oddi.

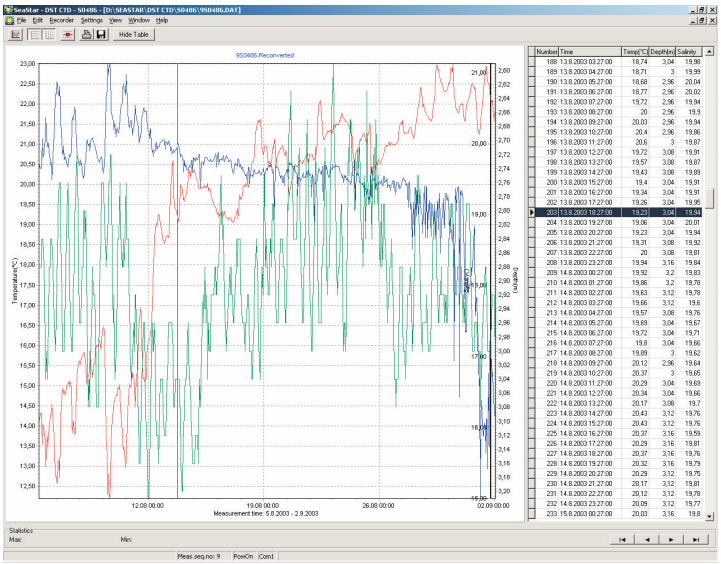


Easy to use

DST CTD is operated with the SeaStar software and a communication box, wich is connected to a PC computer. All communication and data transfer is wireless via the box. The DST CTD is inserted into the hole of the box, and communication can be established with the software. The user programs the CTD with date and time for starting the measurements. After recapture of DST CTD, the data is retrieved into a PC computer, using the communication box and software. The recorder can be reprogrammed and reused as long as the battery lasts. Data can be retrieved even if battery is flat.

SeaStar

DST CTD can be programmed with a sampling interval of one second, and up to several hours. The recorder can be programmed with more than one interval, if desired. The SeaStar software retrieves the accumulated data and processes it in graphs and in tabular form. The software gives numerous possibilities of data presentation, and values can be shown as conductivity/ salinity, pressure/depth. The chart can be edited and zoomed in. The data file can be imported into other programs as well.



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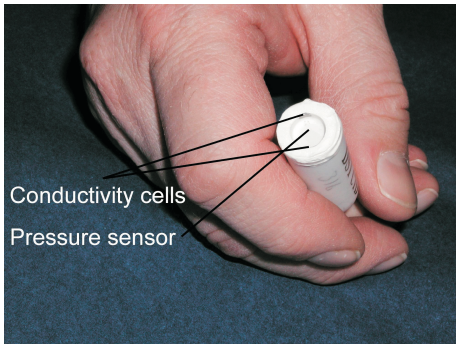
Research applications

The DST CTD is specially designed for tagging fish for analysing fish migration, distribution, feeding behavior, vertical and horizontal movements. DST CTD is ideal for researches on other marine animals as well. The recaptured DSTs provide valuable information on the behavioral patterns of the tagged animal. For recapture and return puposes, the users define their own text on the DST housing.

The DST CTD is also ideal as a stand-alone unit, for environmental studies in the ocean. Star-Oddi offers protective housings for the DST CTD (if needed). Research projects are mainly within the fields of fisheries research, marine biology and oceanography.



Technical specifications - DST CTD

Size (diameter x length)	15 mm x 46 mm (0.6 in x 1.8 in)
Weight (in air / in water)	19 g / 12 g
Memory capacity	43582 measurements pr. sensor*
Memory type	Non-volatile EEPROM
Conductivity ranges	4 - 58 mS/cm, 20 - 50 mS/cm, 30 - 69 mS/cm**
Salinity range	User specified
Temperature range	-1°C to +38°C (30°F to 100°F)
Depth ranges	20 m, 50 m, 100 m, 300 m, 600 m**
Resolution temperature (avg.)	0.032°C (0.058°F)
Resolution depth (avg.)	0.03% of selected range
Resolution conductivity (avg.)	0.015 mS/cm
Resolution salinity (avg.)	0.02 (PSU)
Accuracy temperature	+/-0.1°C (0.18°F)
Accuracy depth (pressure)	+/-0.4% of selected range +/-5 mbar (0.5 kpascal)
Accuracy conductivity	+/-0.2 mS/cm
Accuracy salinity	+/-0.5 (PSU)
Measurement method (cond.)	Conductivity cells
Clock	Real time clock. Accuracy +/-1 min/month
Sampling interval	From 1 sec. and up to 90 hrs. (user defined)
Computer interface	RS-232C, 9 pin
Battery life	5 years***
Data retention	25 years
Attachment hole	0.9 mm (in diameter)****

*Depth measurements can be skipped (DST CT), increasing the memory size to 65374 measurements pr. sensor.
**User selected
***For sampling interval of 15 min. or greater.
****If the protective housing is used, it gives attachment holes of 6 mm.

Specifications may change without notice.

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